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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,343	10/01/2003	Ryuichi Sugizaki	243456US8	3796
22850	7590	09/15/2005		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER KANG, JULIANA K	
			ART UNIT 2874	PAPER NUMBER

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/674,343

Applicant(s)

SUGIZAKI ET AL.

Examiner

Juliana K. Kang

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3 and 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Tirloni et al (US 2004/0028359 A1).

Tirloni et al disclose an optical communication system comprising: an optical fiber that has a cable-cutoff wavelength between about 1250nm and 1450nm (see [0037]), a mode-field diameter of 7.2 at 1459 nanometers (see [0129]), a transmission loss less than about 0.30dB/km at 1450nm [0042] and a dispersion of about 1 ps/nm/km over the whole band [0082]. Tirloni et al further disclose a bending loss of less than about 0.5dB at 1550nm [0038]. Tirloni et al disclose that the fiber loss is the sum of different attenuation mechanism including OH absorption.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tirloni et al.

As described above Tirloni et al disclose the claimed invention except the claimed Raman gain efficiency of not less than 0.7 at 1450nm. Since Tirloni et al teach having efficient Raman amplification and further states that various modifications and variations can be made in the disclosed process and product [0203], it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Tirloni et al's fiber to have any desired Raman gain including 0.7 at 1450nm to make the device optimum for any particular usage and further it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tirloni et al and further in view of Hirano et al (U.S. Patent 6,862,391 B2).

As described above Tirloni et al disclose the claimed invention except a transmission loss of not more than 0.4 dB/km at a wavelength of 1390 nm after hydrogen ageing. Nirano et al teach a fiber with OH absorption near a wavelength of 1.38um is 0.2 dB/km or less supply pumping light of Raman amplification effectively.

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Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teach of Hirano et al in Tirloni et al to supply light of Raman amplification effectively.

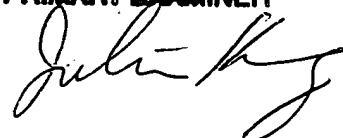
**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliana K. Kang whose telephone number is (571) 272-2348. The examiner can normally be reached on Mon. & Fri. 10:00-6:00 and Tue. & Thur. 10:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**JULIANA KANG**  
**PRIMARY EXAMINER**



9/13/05